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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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7590

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Matthew J. Sampson
McDonnell Boehnen Hulbert & Berghoff
32nd Floor
300 S. Wacker Drive
Chicago, IL 60606

EXAMINER

OPSASNICK, MICHAEL N

ART UNIT

PAPER NUMBER

2655

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,651

Applicant(s)

TOWNSHEND ET AL.

Examiner

Michael N. Opsasnick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on April 19, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-24, 26, 28, 29, 32-38 and 40-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed. 1, 2, 4-24, 26, 28-29, 32-38, 40-44
- 6) ☒ Claim(s) ~~1, 24, 26, 28, 30, 32, 38, 40-44~~ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1,2,4,5,6,7, 8, 11-18, 24, 26, 28,29, 32, 33, 36,37,42,44 and 45,are rejected under 35 U.S.C. 103(a) as being unpatentable over Rtischev *et al* in view of Kahn *et al* (6122614).

As per claims 1, 2, 5, 7, 36,37 and 45, Rtischev *et al*.teach:

- a means for hearing at least one person who is repeating items (spoken-language instruction apparatus employing speech recognition with user reading words from a written script from an inherent database, Abstract; user and microphone, or user and telephone, Fig. 1, elements 12 and 16, or elements 12 and 14, respectively); and
- means for preparing a transcription of what was heard by the means for hearing (as input speech being transcribed – col. 5 lines 5-27)
- means for comparing the items with a transcription of what was heard and thus measuring intelligibility from the comparison (speech recognizer using nonlinear HMM speech models, Fig. 3, element 112; preselected script, element 114; score set, element 120; reading errors, col. 3, lines 43 and 47).
- A measurement unit operable to determine an intelligibility score of the speaker by comparing the items and a transcription of what the listener hears when the speaker

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repeats the items (as FSM comparing the resubmitted sentence after determining the previous result wasn't satisfactory (col. 6 lines 54-67)

Rtischev *et al.* also teaches evaluations using data selected from at least speaker responses and items (col. 3, lines 11-17).

As per claim 8, the "reading errors" (col. 3, lines 43 and 47) of Rtischev *et al.* inherently include at least word substitutions, for an error in reading a word could cause the ASR to interpret it as a different existing word (e.g. a Japanese reader using Rtischev *et al.*'s apparatus to learn English might pronounce "frame" as "flame", which would cause the ASR to recognize the spoken word as the latter).

As per claims 1, 2, 5, 7, 36,37 and 45, Rtischev *et al* does not explicitly teach a human listener preparing the transcription without prior knowledge of the text that is being spoken, however, Kahn et al (6122614) teaches a human operator transcribing an audio file (col. 8 lines 19-28) and performing a secondary comparison between the audio file and the initial transcription (col. 8 lines 29-35; fig. 2c). Therefore, it would have been obvious to one of ordinary skill in the art of speech transcription to modify the teachings of Rtischev *et al* with operator based transcription and double-checking because it would advantageously allow for human interpretation of the audio file without tying time resources of the user themselves (kahn, col. 1 lines 17-26).

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As per claims 4,6, 8, 11-13, 15-18, 24, 26, 28,29, 32, 33, 42, and 44, the combination of Rtischev *et al* in view of Kahn et al (6122614) teaches listening to the speaker (via the recorded audio file of the user – col. 8 lines 19-28).

As per claim 14, Rtischev *et al.* in view of Kahn does not explicitly teach selecting listeners based on certain background characteristics. However, it would have been obvious for an artisan at the time of invention to select listeners that have extensive background speaking knowledge of the language being learned because they would be best able to determine the intelligibility of someone trying to speak the language.

2. Claims 9, 10, 19, 20-23, 34, 35, 38,40-41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rtischev *et al.* in view of Kahn et al, as applied to claims 1, 2, 5, 7, 8, 36, and 37, above, in view of Charles Lewis *et al* (U.S. Patent 5,059,127, issued October 22, 1991).

As per claims 9, 10, 19, 20-23, 25, 34, 35, 41, and 43, while Rtischev *et al.* in view of Kahn et al (6122614) teaches evaluating an error count intelligibility score (reading errors, col. 3, lines 43 and 47), they do not evaluate difficulty of the items and ability of a listener, nor doing this using Item Response Theory. However, Lewis *et al.* do (col. 1, line 63 through col. 2, lines 1, 16-26, and 42-43, with Figure 1A).

It would have been obvious for an artisan at the time of invention to do this because Lewis *et al.* teach that IRT “allows creation of a test in which different individuals receive

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different questions, yet can be scored on a common scale" as well as "permits determination in advance of test administration of the level of ability and the accuracy with which ability has been measured" (col. 2, lines 31-36).

The rest of the limitations were discussed in connection with the rejection of claims 1, 2, 5, 7, 8, 36, and 37, above.

As per claim 38, Rtischev *et al.* do not teach a database containing data from previous evaluations. However, Lewis *et al.* teach retaining data from previous "testlets" and "sequentially administering testlets ... until a pass/fail decision can be made" (Abstract), thus suggesting retaining results of previous intelligibility evaluations (testlets) for later continued evaluation. It would have been obvious for an artisan at the time of invention to do this, to avoid having to administer all the testlets in a single sitting.

As per claim 40, Rtischev *et al.* suggest use of nonlinear artificial neural net models for speech recognition (see reference to Kim *et al.* under "Other Publications" on the front page, top of second column).

Response to Arguments

3. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872 9314,

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (703)305-4089, who is available Tuesday-Thursday, 9am-5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To, can be reached at (703)305-4827. The facsimile phone number for this group is (703)872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (703) 305-4750, the 2600 Customer Service telephone number is (703) 306-0377.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mno
7/7/2004



W. R. YOUNG
PRIMARY EXAMINER